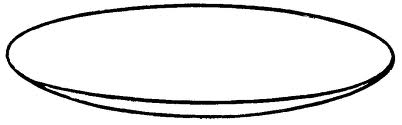
Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit 1 Review

1. List 5 safety rules
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Name each of the following pieces of laboratory equipment

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[](http://www.google.com/imgres?q=watch+glass&um=1&hl=en&safe=active&biw=1366&bih=587&tbm=isch&tbnid=kNazic5Z1eQ54M:&imgrefurl=http://www.arthursclipart.org/science/science/page_04.htm&docid=Q_VK1IPrbr7ldM&w=925&h=289&ei=MIx8TtD6Cu7F0AHPjcUJ&zoom=1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Determine if each of the following represents a chemical or a physical change

Milk souring \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sugar dissolving in water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Wood rotting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A pellet of sodium is sliced in two \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Iron rusting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Water is heated until it turns into steam \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Iodine sublimes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. List 5 signs that a chemical reaction has taken place

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Now circle which one will always guarantee that a chemical change has occurred**

1. For each of the following circle which situation (A or B) will happen the fastest

|  |  |  |
| --- | --- | --- |
|  | Situation A | Situation B |
| 1 | A block of wood being lit on fire | Sawdust being lit on fire |
| 2 | A solution reacting without a catalyst | A solution reacting with a catalyst |
| 3 | Dissolving NaOH in water at 90oC | Dissolving NaOH in water at 3oC |
| 4 | Stirring a reaction | Letting the reaction happen on its own |

1. Sugar cubes will dissolve in water. List 3 things that you could do in order to speed up the process

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Next to each of the following, write either a P or a C. Write a P if the property represents a physical property, write a C if it represents a Chemical property:

Boiling point \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Density \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ability to react with oxygen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mass \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Flammable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Given the following data from a laboratory performed by a student to determine the amount of salt and sand in a mixture calculate the experimental percent composition of salt and sand. In doing this you should fill in the missing information on the data table. Be sure to show all of your work.

|  |  |
| --- | --- |
| Mass of filter paper | 0.98 g |
| Mass of filter paper + mixture | 5.7 g |
| Mass of mixture |  |
| Mass of filter paper and sand | 3.8 g |
| Mass of sand |  |
| Mass beaker | 170.8 g |
| Mass of beaker + salt | 172.4 g |
| Mass of salt |  |

Show your work here for calculating the % salt and the % sand, use the following formulas:

X 100

Mass of Salt

Mass of Mixture

Mass of Sand

X 100

Mass of Mixture

If the accepted vale for the percent sand was actually 54.3 %, calculate the student’s percent error using the formula below. Be sure to show your work!

Measure Value – Accepted Value

X 100

Accepted Value

1. Describe how you could separate a mixture of salt, sand, and iron:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. What is another way to separate sand and water without filtering, boiling, or evaporating? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. A sample has a volume of 43.2 mL and a mass of 56.2 g. What is the density of this substance? Will it sink or float in water?
3. Fill in the proper term for each of the following definitions:

|  |  |
| --- | --- |
| Definition | Term |
| A type of mixture in which the parts of the mixture are noticeably different from one another |  |
| 2 or more substances chemically bonded together |  |
| A substance that cannot be broken down into simpler substances |  |
| A process that separates substances based on boiling point |  |
| A heterogeneous mixture that separates into layers over time |  |
| Anything that has mass and volume |  |
| A mixture in which the substances are too difficult to distinguish from one another |  |
| A change in which nothing new is made |  |
| 2 or more substances physically combined |  |
| A way to separate substances based on particle size |  |
| Matter can be broken into these 2 major categories |  |

**Word Bank:**

Matter, Pure substance, homogeneous, heterogeneous, element, compound, chemical change, physical change, solution, colloid, suspension, filtration, distillation, chromatography, centrifuge